

Frame prefix: SP979

Telescope: 61"

Sheet #: 1

Date: 1997 Nov 26/27 Wed  
1997 Nov 27/28 TH  
Focus: 8425  
Iris: 3.0  
Tailpiece: N-S  
Balance: 500

+4 Humidity: 85%  
TH Temp: 21/26

Observers: Fink, Feny, Allen

Guidepoint: 347.1, 396.1  
↓  
off the me  
397.4

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA structure, VME crashes, clouds, etc.
1 <sup>st</sup>	night (Wed)			total	cloudy				mostly cloudy night. <sup>delete</sup> 224.4 (193.5) 194.4 100% should be 230 rings <sup>52%</sup> 200 shells parallel 170 is 200
001	off	60m	0.25						2x reflected off clouds (slit slightly open) useful for near defect & flat field. 1997 Nov 27/28 from notes: 5300 down to 5240.
002	Mercur-Dys	1260	0.50	3260/170/1400	2:57:23	17 55 52.8	+48 32 05	2.62	LHA PA Humidity 100% +06:07 66.1 slit N-S
<del>003</del>	"	"	"		5:18:09	ST	31 57	3.01	+06:27 66.8
									humidity quite high! 200 clouds fog at rising for 002 but happens quite clean. Hit limit at approximately RA=17:50 ran into limits w/ had to abort exposure; seeing quite bad! abt 3-5"
003	1913 WD	1036	0.50	<sup>Nitro gas</sup> 2600/1800/1500	03:58	1 00 20.45	-13 15 01	1.44	close approach to star; Darkslide in @ 824s +00:03 01.1 " out @ 660s
004	"	1007	"	2300/1800	4:18	12.2	52 06	1.45	close approach to star; Darkslide in @ 310s 00:29 +07.2 Darkslide out @ 1475
005	"	946	"	2300/1500/1400	4:34:55	03.7	50:07	1.48	close approach to star; Darkslide in @ 193s 00:45 +13.2 out @ 1475
006	"	1200	"	2400/1500/1400	5:00:13	0 59 58.2	48:11	1.52	01:06 18.8
007	"	1094	"	2500/1600/1400	5:21	59 46.3	46:11	1.58	close approach to star; Darkslide in @ 106s 01:28 24-3 through end of exposure
<del>008</del>	"	1200	"		5:42	38.3	44:21	1.65	dark slide in! 2x
008	S751 ZAO	1200	0.50	<sup>~800</sup> 2470/1600/1400	6:22	04:27:26.6	-10:54:57.7	1.42	-00:18 -17.5
009	"	"	"	<sup>~850</sup> 2400/1550/1400	6:45	25	55 00	1.39	-10:35 -10.9
010	"	862	"	<sup>2200</sup>	7:06	23	59	1.37	close approach to star; -00:13 -3.7 Darkslide in @ 338s to end of exposure

re-written  
a bit

Frame prefix: SP976

Telescope: 61"

Sheet #: 2

Date: Nov 27/28

Focus:

Humidity: 90%

Observers: Fevig, Collins, Fink

Thursday

Iris:

Tailpiece: N-S

Balance:

Temp:

Guidepoint:

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
011	Comp BS1747	1.3	1.0	13K	7:36	5:18:44	-18:08:16	1.59	
012	"	2.0	"	18K				"	
013	"	"	"	19K				"	
014	"	"	"	17K				"	
015	"	"	"	19K				"	
016	"	"	"	19K				"	
017	"	"	"	18K	7:42			"	
018	Comp BS1262	2.0	"	25K	7:47	4:05:11	+22:00:16	1.03	
019	"	"	"	27K				"	
020	"	"	"	21K				1.04	
021	"	"	"					"	
022	"	"	"	21K				"	← Drop in guiding phot.
023	"	"	"	22K				"	
024	"	"	"	20K				"	← Drop in guiding phot.
025	std BS1855	0.9	"	21K	7:57	5:31:49	-7:18:11	1.31	
026	"	1.0	"	20K				"	
027	"	"	"	24K				"	
028	"	"	"	21K				"	
029	"	"	"	21K				"	
030	"	"	"	23K				1.30	
031	Comp BS695	1.2	"	25K	8:14			2.97	Guiding phot. Jim reports variable
032	"	"	"	22K	8:15			2.99	
033	"	"	"	20K				3.00	Guiding phot. is dropping
034	"	"	"					3.02	
035	"	"	"	20K				3.04	
036	"	"	"	26K				3.06	
037	"	"	"	26K				3.08	
038	5751 Zao	1200	0.5	~1290 2585/1300/1180	8:32	4:27:18	-10:54:48	1.45	
039	"	"	"	~900 2454/1560/1360	8:56	04:27:17	-10:54:48	1.52	

sky looks OK though phot. is flaky

Frame prefix: SP976

Telescope: 61"

Sheet #: 3

Date: Nov 27/28  
Thursday

Focus:  
Iris:  
Tailpiece: N-S  
Balance:

Humidity: 70%  
Temp: 20/25

Observers: Fevig, Collins, Fink

Guidepoint:

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
040	5751 Zao	1200	0.5	<del>2590/1120/1200</del> ~1070	9:16	4:27:16	-10:54:44	1.60	
041	"	"	"	<del>2770/1410/1220</del> ~1360	9:37	4:27:15	-10:54:43	1.71-1.8	
042	Wolf-Harrington	1200	0.5	<del>3470/1970/1260</del> Not 2000 Nov 21st	10:18	9:54:23	-4:23:23	1.59	PA=-41.4 LHA=-2:29
043	"	"	"	<del>3700/1970/1280</del>	10:39	23	:44	1.48	-37.4 = -2:07
044	"	"	"	<del>3000/1470/1270</del>	11:00:11	29	24 06	1.40	-32.8 -0:46
045	"	"	"	<del>2800/1050/1300</del>	11:21	29.5	23	1.39	jump in east (-0:24) later 2m -0:25 mag left
046	Topl-Tulle	1	"	<del>2150/1170/1250</del>	12:29	12:29:147	14:51:096	1.39	LHA PA 2m B+ex -02:17, -17 = peak vs flux 1800 no signal!
					at end	T 20:29	H = 95		
<p>night vs clear but not photometric; permeable thin haze on all alt          thick clouds near horizon. humidity ramps for 70-100% peak w/ fog during night          at dawn a haze cloud cover developed over mountain top!          seeing vs had all night 3-5"          N.B. Guidepoint is off by one pixel in RA (used 396); should be 397.4          @ R 397</p>									
FK 4 for setup stars:						871	1606		
<p>Canon 0: Input Flashes, Ready out          Shutter: Open          UT Start:          Time left:          Chip Temp.</p>									

Frame prefix: *SP97g*

Telescope: *61"*

Sheet #: *4*

Date: *Nov. 28/29*  
*Frick*

Focus: *3457*  
Iris: *3.0*  
Tailpiece: *N-C*  
Balance: *SCD*

Humidity: *67%*

*N-C E-W*

Observers: *Fink, Fung, Collins*

Temp: *29/32*

Guidepoint: *5478, 2970*

Tape #1 ✓

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
047	<i>Karel 2</i>	<i>1200</i>	<i>0.50</i>	<i>Net 600 2750/2100/1740</i>	<i>02:03:02</i>	<i>22:33 49.5</i>	<i>+07:22:52.0</i>	<i>1-12</i>	<i>LHA PA Peak flux 18.7 +0:18 18.7 600 1190</i>
048	"	"	"	<i>Net 1200 2660/1900/1660</i>	<i>02:12:24</i>	<i>50.6</i>	<i>4:25</i>	<i>1-14</i>	<i>+0:19 27.2</i>
049	"	"	"	<i>Net 1700 2670/1900/1660</i>	<i>02:14:45</i>	<i>51.8</i>	<i>4:26</i>	<i>1-17</i>	<i>01:21 34.6</i>
050	"	"	"	<i>2700/1900/1670</i>	<i>03:01:06</i>	<i>52.9</i>	<i>3:2</i>	<i>1-21</i>	<i>01:42 W 4.3 <sup>in this point</sup> 2nd live seen probably!</i>
051	"	"	"	<i>2600/1800/1610</i>	<i>3:27</i>	<i>54.1</i>	<i>3.6</i>	<i>1-27</i>	<i>02:03 44.8</i>
052	"	"	"	<i>2500/1911/1588</i>	<i>3:47</i>	<i>55.3</i>	<i>3.3</i>	<i>1-34</i>	<i>→ 1-42 02:24 48.5</i>
053	<i>1993 WD</i>	<i>1200</i>	<i>0.50</i>	<i>1800 Net 3520/1600/1500</i>	<i>4:24</i>	<i>00 50 57.1</i>	<i>-11 41:29</i>	<i>1-41</i>	<i>00:40 +12.0</i>
054	"	<i>785</i>	"	<i>1200 Net 2860/1620/1500</i>	<i>4:42</i>	<i>48.9</i>	<i>39:25</i>	<i>1-45</i>	<i>2 close stars: Darkslide in @ 863, out @ 681 01:01 +18.1 in @ 539, out @ 306</i>
055	"	<i>1200</i>	"	<i>1800 Net 3534/1699/1525</i>	<i>5:03</i>	<i>40.9</i>	<i>37:31</i>	<i>1-50</i>	<i>01:22 +23.6</i>
056	"	"	"	<i>1700 Net 3340/1640/1460</i>	<i>5:23</i>	<i>32.9</i>	<i>35:35</i>	<i>1-57</i>	<i>01:43 +28.7</i>
057	"	"	"	<i>2000 Net 3700/1600/1470</i>	<i>5:56</i>		<i>32:36</i>	<i>1-72</i>	<i>02:16 +35.6</i>
058	"	<i>875</i>	"	<i>1600 Net 3310/1700/1520</i>	<i>6:17</i>	<i>12.5</i>	<i>30:44</i>	<i>1.87 - 2.06</i>	<i>Close star: Darkslide in @ 380 02:37 +39.4 out @ 55</i>
059	<i>5751 Zao</i>	<i>1200</i>	<i>0.50</i>	<i>1600 Net 3346/1720/1520</i>	<i>6:50</i>	<i>04:26:06.4</i>	<i>-10:55:23</i>	<i>1.38</i>	
060	"	"	"	<i>1700 Net 3530/1790/1570</i>	<i>7:11</i>	<i>05.2</i>	<i>17</i>	<i>1.37</i>	
061	"	"	"	<i>1700 Net 3540/1800/1590</i>	<i>7:32</i>	<i>03.9</i>	<i>21.4</i>	<i>1.37</i>	
062	"	"	"	<i>1800 Net 3600/1730/1600</i>	<i>7:56</i>	<i>02.5</i>	<i>14.0</i>	<i>1.40</i>	
063	"	"	"	<i>1700 Net 3440/1730/1550</i>	<i>8:17</i>	<i>01.2</i>	<i>12.3</i>	<i>1.43</i>	<i>01:03 +18.9</i>
064	"	"	"	<i>3420/1622/1590</i>	<i>8:37</i>	<i>25:59.8</i>	<i>09.9</i>	<i>1.48 →</i>	<i>01:22 +24.0</i>

Frame prefix: SP976

Telescope: 61"

Sheet #: 5

Date: Nov 28/29

Focus: 3470

Iris: Tailpiece: N-S

Humidity:

Observers: Fevig, Collins, Fink

Friday

Balance:

Temp:

Guidepoint: 347.8, 397.3

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
065	Comp BS 1532	0.8	1.0	26K	9:16	04:47:30	-16:56:23	1.73	
066	"	"	"	22K				"	
067	"	"	"					1.74	
068	"	"	"	21K				"	
069	"	"	"	22K				"	
070	"	"	"	21K				1.75	
071	"	"	"	23K				1.75	
072	Comp BS 2141	1.6	"	24K	9:31	06:05:59	+35:23:35	1.01	
073	"	"	"	23K				"	
074	"	"	"	26K				"	
075	"	"	"	23K				"	
076	"	"	"	22K				"	
077	"	"	"	26K				"	
078	"	"	"	28K				"	
079	Std BS 1855	0.7	"	26K	9:45	5:31:49	-07:18:03	1.40	Name wrong in header
080	"	"	"	25K				"	"
081	"	"	"	28K				"	"
082	"	"	"	27K				1.41	"
083	"	"	"					"	"
084	Comp BS 483	0.8	"	41K	9:55	11:41:39	+42:36:03	2.18	Name correct in header
085	"	0.6	"	22K				2.19	
086	"	"	"	29K				2.21	
087	"	"	"	32K				2.22	
088	"	"	"	25K				2.23	
089	"	"	"					2.24	
090	"	"	"	27K				2.25	
091	1977QQ 5	1200	0.5	<del>12500 Net</del> 2770/1900/1450	10:15	07:13:35	-28:26:26	2.05	Guiding: 450=Peak, 1260=sky 60mc LHA 10A
092	"	"	"	<del>800 Net</del> 2700/1800/1550	10:36			2.07	
093	"	"	"	<del>200 Net</del> 2680/2000/1350	10:57	54	20:57	2.13	→ 2.22 +055 H3.1



Frame prefix: Sp97g

Telescope: 61"

Sheet #: 7

Date: Nov 29/10

Focus: 3535

Humidity: 85%

Iris: 2.0

Tailpiece: N-S 2.4x

Balance: 3.0

Temp: 21/37

Observers: Ank, Fran, Ellis

Sat night

Guidepoint: J478, 397-2

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.	
098	Meunier-Dupas	120	0.10	Not 560 590/220/1830	1:39	18:20:12.1	+48:02:58	1.27	HA PA 4.57 +78.0 Spec 382	
099	"	"	"	600/220/1830	02:00:38	19.7	436	1.95	5.12 746 260 120 22K part of plot very faint to N	
100	"	"	"	540/240/1600	02:53:31	18 - 23.5	232	2.31	5.45 614 260 614 waiting for star to pass	
101	Tessellipaca	600	"	23K	05:38:44	01:12:10.4	+25:12:15	1.01	rechecked for transits Helen Roman also - both for fainter spectra -0:18 -28.5	
102	"	"	"	23K/170/110	3:57	12.5	-11:37	1.01	0:27 -12.7	
103	"	"	"	23K	4:02	14.5	10:58	1.01	0:03 +61	
104	"	"	"	223K/170/110	4:13	16.9	10:19	1.01	0:15 +24.1 possibly red dip star passing through	
105	"	"	"	20.5K	4:28	19.6	09:27	1.01	0:36 +41.3	
106	"	"	"	19K/170/150	4:39			1.02		
107	"	"	"	18K/1680/1560	4:50	23.6	08:12	1.03	0:52 54	
108	BS660	0.5 sec	1.0	29K 28K	5:07	02:16:55	39:13:07	1.00	00:05 1527	
109	"	"	"	26K 28K						
110	"	"	"	27K						
111	"	"	"	27K	5:11					
112	"	"	"	27K						
113	"	"	"	23K						
114	"	"	"	31K	5:15					
115	"	"	"	27K						
116	"	"	"	27K				1.00	00 122.7	
117	"	"	"	27K						
118	BS695	0.5	"	17K	5:24	2:22:26.8	-23:49:33	1.80	00:16 4.2	
119	"	1.0	"	34K					) FITS header wrong here	
120	"	"	"	30K				1.80		00:20
121	"	"	"	36K	5:28			1.80		00:20
122	BS 718	0.50	"	21K		2:28:02	+08:27:04	1.10	00:21 -10.9	
123	"	"	"	24K	5:36					

Frame prefix: SP976

Telescope: 61"  
 Date: Nov 29/30  
 Saturday

Focus:  
 Iris:  
 Tailpiece: N-5  
 Balance:

Sheet #: 8

Observers: Fink, Feviz, Collins

Humidity:  
 Temp:

Guidepoint:

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
124	BS 718	0.40	1-0	27K	5:38			1.10	2HA PA
125				28K					
126	Deneb	60s	0.50	43K	5:52	4:32:256	29 47 196	1.06	-01:25 77
127				27K					
128	"	"	"	24K					
129	"	"	"	22K				1.05	
130	"	"	"	29K	6:00				
131	"	"	"	29K	6:01				
132	"	50s	"	35K	6:03			1.04	
133	"	45	"	34K	6:04				
134	"	"	"	34K					
135	"	"	"	33K	6:08			1.04	-01:09 -70
136	RC 695	1.0	1-0	35K	6:23	2:22:267	-23 49 49	1.93	-01:15 +18.5
137	"	"	"	28K				1.94	
138	"	"	"	29K	6:35			1.99	
139	"	"	"	29K	6:37			2.00	
140	"	"	"	27K	6:42			2.05	
141	"	"	"		6:48			2.06	
142	"	"	"	29K	6:56			2.11	
143	"	"	"		6:57			2.12	
144	"	"	"	30K	6:59			2.13	
145	"	"	"	26K	7:00			2.14	
146	4183 Curo	1200	0.5	<sup>~800 Net</sup> 2780/1900/1580	7:12	01:02:51.6	+18:50:15.6	1.48	03:23 ~+63
147	"	"	"	<sup>~1000 Net</sup> 2900/1870/1520	7:33	50.7	03.4	1.62	
148	"	"	"	<sup>~700 Net</sup> 2680/1900/1450	7:54	50.0	49:54.7	1.80	Jim sees clouds in the South 04:06 +63.3
149	"	"	"	<sup>~800 Net</sup> 2810/1920/1520	8:14	49.4	45.6	2.04 → 2:35	Filled dewars New focus = 3497
150	7977 1977 QRS	1200	0.5	<sup>~500 Net</sup> 2500/1940/1520	9:50	07:12:53	-28:12:12.6	2.03	00:08 -7.3 } Extremely busy stafield!
151	"	"	"	<sup>~600 Net</sup> 2560/1880/1470	10:11	52.3	11:57.2	2.03	00:43 +3.3
152	"	"	"	✓	10:32	51.8	11:43.6	2.06	00:55 +8.5 v. faint Amastora

Tape #3 ↓

Tensel-Tuttle

V+R

put 42 no of 9600

in 2 min





Frame prefix: SP976

Telescope: 61"

Sheet #: 10

Date: Nov 30/Dec 1  
Sun night

Focus: 2470  
Iris: 3w  
Tailpiece:  
Balance:

Humidity: 72%  
Temp: 24.30

Observers: FinK, Fung, Collins

Guidepoint: 5428, 3972

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
158	5826 1993 MF	600 1200	0.10	Net ~ 250 2300/1810/1600	4:50	4:18:37	19:43:40	L18	-02:10 -60.1
159	"	1200	"	Net ~ 1670 2470/180/160	5:12	353	29	L13	-01:48 -57
100	"	"	"	Net ~ 800 2520/1710/1420	5:33	300	36	L09	-01:27 -53
161	"	"	"	Net ~ 810 2510/1710/140	5:54	285	32	L06	-01:06 -46
162	"	"	"	Net ~ 850 2490/1600/1380	6:14	267	28	L04	-00:44 -36
163	"	"	"	Net ~ 700 2310/1610/1380	6:35	254	26	L03	-00:23 -22
164	"	"	"	Net ~ 500 2160/1620/1300	6:56	24.0	20.5	L02	-00:02 -2.8
165	"	"	"	Net ~ 300 1970/1620/1340	7:17	22.9	15.9	L03	+00:17 +16.3
<p>Attempting to shoot comp star through the clouds</p>									
166	BS2067	2	1.0	24K	7:55	05:55:56	+13:55:25	1.07	<p>May have to throw some of these out</p> <p>waiting for guiding photometry to come back up</p> <p>Big drop in guiding phot.</p>
167	"	"	"	24K	7:56			"	
168	"	"	"	19K	7:58			"	
169	"	"	"	23K				"	
170	"	"	"	24K	7:59			"	
171	"	"	"		8:01			1.06	
172	"	"	"	13K	8:02			"	
173	"	"	"	22K	8:04			"	
174	"	"	"	22K	8:05			"	
175	"	"	"	20K	8:06			"	
176	"	"	"	22K	8:07			"	
177	"	"	"	18K	8:09			"	
178	5836 1993 MF	1200	0.5	Net ~ 650 2300/1620/1300	8:29	04:18:17	+19:42:59	L09 → L13	+01:30 +53.6
<p>Clouds all around us and on the direction we are pointed ... closing up.</p>									

W ↓

TI976

Telescope: 61"

Sheet #: ①

Frame prefix: FR976

Focus: 3420

Date: Nov. 27/28

Iris: 300

Humidity: 100% (+)

Observers: Fevig, Collins, Fink

Thursday

Tailpiece: N-S

Balance: 350

Temp: 21/26

Guidepoint: 347.1, 396.1

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
X	Did not observe Nov 26/27 (Wednesday) due to cloud cover. Snowed lightly after midnight of this same night.								
X	Intermittent clouds while finding guidepoint. Guidepoint changed since								
X	last run by $\sim +10''$ in R.A.								
X	Mennier-Dupuy	60	B/Di	1500	2:51	17:55:52	+48:32:11	2.51	Light clouds in North
X	1993 WD	45	B/Di	1000	3:54	01:00:23	-13:54:34	1.45	
001	"	"	"	800	4:10	01:00:15	-13:52:48	1.45	
002	"	"	"	1400					
003	"	"	"	1600					
004	"	"	"	1400	4:18	01:00:12	-13:52:08	1.45	
X	5751 Zw	45	B/Di	2100	6:20	04:27:27		1.43	
005	"	"	"	2000	$\sim 6:28$				
006	"	"	"	1700	6:34	04:27:26	-10:55:00	1.40	
007	"	"	"	2100	6:41	04:27:25	-10:55:00	1.40	
008	BS 1747	0.05	Imm slit	31679	7:41	05:18:44	-18:08:16	F.59	
009	"	"	"	25888	7:42	"	"	1.58	
0010	BS 1262	"	"	43,000	7:49	04:05:11	+22:00:16	1.04	
0011	"	"	"	33,000	7:51	"	"	"	
0012	BS 1855	0.01	"	43,052	7:59	05:31:49	-07:18:23	1.31	
0013	"	"	"	41742	8:00	"	"	"	
0014	BS 695	0.05	"	3200	8:17	02:22:26	-23:49:28	3.04	



TI97G

Frame prefix: FR97G

Observers: Fevig, Fink, Collins

Telescope: 61"

Date: Nov 28/29  
Friday

Focus: 3455  
Iris:  
Tailpiece: N-S  
Balance:

Humidity:  
Temp:

Sheet #: 3

Guidepoint: 347.8, 397.0

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
<del>X</del>	Kowal 2	60	B/D	590/56K	1:51	22:33:50	+7:22:46	1.11	
020	"	"	"		2:47	22:33:52	+7:22:43	1.17	
021	"	"	"		2:51			1.18	
022	"	"	"		2:58	22:33:52	+7:22:41	1.19	
<del>023</del>	Kowal 2 + satellite	"	"		~3:13				Likely a tumbling satellite in image
<del>X</del>	1993 WD	45	B/D	sky=1100 1830/17K	4:17	00:50:59	-11:41:55	1.41	
024	"	"	"		4:33	00:50:52.3	-11:40:13.5	1.43	
025	"	"	"		5:05	00:50:40	-11:37:18	1.50	
026	"	"	"		5:25	00:50:32	-11:35:28	1.57	
<del>X</del>	5751 Zao	45	B/D	sky=1040 1810/22K	6:50	04:26:06.4	-10:55:23	1.38	
027	"	"	"	sky=1020 2000/21K	7:27	04:26:04.2	-10:55:26.4	1.37	
028	"	"	"	1700/21K	7:43	04:26:03.3	-10:55:21.4	1.38	
029	"	"	"	sky=1040 1440/21K	8:00	04:26:02.3	-10:55:13.8	1.40	
									new focus = 3470
	Note: changed focus to 3470				changed Guide point to (347.8, 397.3) @ UT 9:15				
030	BS 1532	0.05	1.0mm	sky=797 77945/478,000	9:19	04:47:30	-16:56:21	1.74	(note - bias rates were still on)
031	"	"	"	sky=862 15915/478,496	9:22	"	"	1.75	"

missing from  
 original film



Frame prefix: *TI976*

Telescope: *61"*

Sheet #: *5*

Date: *Nov 29/30*

Focus: *3535*

Humidity: *55%*

*Saturday*

Iris: *300*

Tailpiece: *N-5*

Balance: *350*

Temp: *31/37*

Observers: *Fevig, Fink*

Guidepoint: *347.8, 397.2*

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
<del>0043</del>	<i>Meunier - Doupouy</i>	<i>60</i>	<i>B/Di</i>	<i>Sky=1340 2790/380K</i>	<i>1:35</i>	<i>18:01:16.5</i>	<i>+48:04:01.1</i>	<i>1.74</i>	
<i>0044</i>	"	"	"	<i>1270 2760/371K</i>	<i>1:42</i>	<i>17.5</i>	<i>03:55.2</i>	<i>1.79</i>	
<i>0045</i>	"	"	"	<i>1290 2570/380K</i>	<i>1:56</i>	<i>19.2</i>	<i>45.9</i>	<i>1.97</i>	
<i>0046</i>	"	"	"		<i>2:09</i>	<i>20.7</i>	<i>37.9</i>	<i>2.03</i>	
<del>0047</del>	<i>Tsuchinshan</i>	<i>120</i>	<i>V+R</i>					<i>~1.3</i>	<i>Very faint!</i>
<del>0048</del>	"	"	"		<i>3:17</i>	<i>~01:55:59</i>	<i>~03:04:05</i>	<i>1.32</i>	"
<del>0048</del>	<i>Helin-Roman - Alu 2</i>	<i>120</i>	<i>V+R</i>						
<i>0049</i>	"	"	"		<i>3:30</i>	<i>~02:03:09</i>	<i>+03:50:30.9</i>	<i>1.20</i>	
<del>0050</del>	<i>1480 Tezcatlipoca</i>	<i>30</i>	<i>B/Di</i>	<i>Sky=950 8126/309K</i>	<i>3:39</i>				
<i>050</i>	"	"	"	<i>950 7940/312K</i>	<i>3:41</i>	<i>01:12:10.8</i>	<i>+25:12:08</i>	<i>1.01</i>	<i>Name in header incorrect</i>
<i>051</i>	"	"	"	<i>950 8770/319K</i>	<i>3:45</i>	<i>11.5</i>	<i>11:55</i>	<i>1.01</i>	"
<i>052</i>	"	"	"	<i>940 8900/322K</i>	<i>3:50</i>	<i>12.4</i>	<i>11:39</i>	<i>1.01</i>	"
<i>053</i>	<i>Comp BS660</i>	<i>0.02</i>	<i>B/Di</i>		<i>5:09</i>	<i>02:16:55</i>	<i>+34:13:07</i>	<i>1.00</i>	
<del>054</del>	"	"	"					"	
<del>055</del>	"	"	"					"	
<i>056</i>	<i>Comp BS695</i>	<i>0.05</i>	"		<i>~5:25</i>	<i>02:22:26</i>	<i>-23:49:49</i>	<i>1.80</i>	
<i>057</i>	"	"	"					"	
<i>058</i>	"	"	"					"	
<i>059</i>	<i>Std 135 718</i>	<i>0.02</i>	"		<i>~5:35</i>	<i>02:28:02</i>	<i>08:27:07</i>	<i>1.10</i>	
<i>060</i>		"	"					"	
<i>061</i>		"	"					"	

Frame prefix: *TI 976*

Telescope: *61"*

Sheet #: *6*

Date: *Nov 29/30*

Focus: *3535*

Humidity: *65%*

Iris: *300*

Tailpiece: *N-5*

Balance: *350*

Observers: *Fevig, Fonk, Collins*

*Saturday*

Temp: *27/33 @ 4am* Guidepoint: *347.8, 397.2*

Exp. #	Object	Exp. time	Filter (slit)	Counts: Peak/Phot	UT time Start	RA $\alpha$	Dec $\delta$	SecZ	Comments: seeing, moon, LHA, VME crashes, clouds, etc.
<del>062</del>	<i>349 Dembowska</i>	<i>5</i>	<i>B/DI</i>		<i>5:57</i>	<i>4:32:25</i>	<i>+29:47:20</i>	<i>1.05</i>	
<del>063</del>	"	"	"		<i>6:08</i>			<i>1.04</i>	
<del>064</del>	"	"	"						
<del>X</del>	<i>4183 Cuno</i>	<i>60</i>	<i>B/DI</i>	<i>sky=1195</i> <i>350/21K</i>	<i>7:12</i>				
<i>065</i>	"	"	"	<i>1200</i> <i>330/23K</i>	<i>7:15</i>	<i>01:02:51.4</i>	<i>+18:50:12.5</i>	<i>1.49</i>	
<i>066</i>	"	"	"		<i>7:25</i>	<i>51.0</i>	<i>07.1</i>	<i>1.56</i>	
<i>067</i>	"	"	"	<i>1240</i> <i>280/20K</i>	<i>7:35</i>	<i>50.6</i>	<i>02.7</i>	<i>1.63</i>	
	<i>changed focus to</i>			<i>3497 at UT</i>	<i>09:01</i>				
<i>068</i>	<i>7977</i> <i>1977 QRS</i>	<i>60</i>	<i>B/DI</i>	<i>1260</i> <i>380/24K</i>					<i>Name incorrect on header</i>
<i>069</i>	"	"	"	<i>1260</i> <i>365/119K</i>	<i>10:00</i>	<i>07:12:52.6</i>	<i>-28:12:05</i>	<i>2.03</i>	"
<i>070</i>	"	"	"	<i>1248</i> <i>330/496K</i>	<i>10:10</i>	<i>07:12:52.4</i>	<i>-28:11:58</i>	<i>2.03</i>	<i>Name correct</i>
<del>071</del>	<i>Temple-Tuttle</i>	<i>120</i>	<i>V+R</i>		<i>11:02</i>	<i>12:30:06.5</i>	<i>+14:49:37</i>	<i>1.99</i>	
<i>072</i>	"	"	"	<i>9000</i> <i>4300/166K</i>	<i>11:04</i>			<i>1.95</i>	
<i>073</i>	"	"	"		<i>11:08</i>				
<del>X</del>	<i>Wolf-Harrington</i>	<i>45</i>	<i>B/DI</i>	<i>sky=980</i> <i>1350/181K</i>	<i>11:25</i>	<i>09:56:39.8</i>	<i>-05:11:15.7</i>	<i>1.34</i>	
<i>074</i>	"	"	"	<i>960</i> <i>1260/449K</i>	<i>11:27</i>	<i>39.9</i>	<i>17.8</i>	<i>1.33</i>	
<i>075</i>	"	"	"	<i>978</i> <i>1188/775K</i>	<i>11:45</i>	<i>40.7</i>	<i>37.0</i>	<i>1.30</i>	
<i>076</i>	"	"	"		<i>12:45</i>	<i>42.8</i>	<i>12:30</i>	<i>1.26</i>	



